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**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

Federal Communications Commission  
Office of the Secretary

In the Matter of

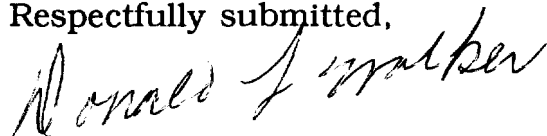
Advanced Television Systems  
and Their Impact Upon The  
Existing Television Broadcast  
Service

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MM Docket No. 87-268

Motorola, Inc. (hereinafter Motorola) is pleased to submit these  
Comments in the above-captioned matter.

Respectfully submitted,



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## **INTRODUCTION**

The Commission in the instant proceeding focuses upon the process of allotting and assigning spectrum for Advanced Television (ATV). It specifically raises questions on: eligibility; how to treat other related broadcast services; and how to best provide for transition of the current NTSC service to ATV.

The Commission also addresses the important issue of other potential use for the spectrum involved. Motorola with its major involvement in the land mobile business is vitally interested in spectrum related matters; it thus puts forth its views herein on that particular aspect of this proceeding.

## **SPECTRUM MUST BE USED EFFICIENTLY AND EXPEDITIOUSLY**

Spectrum is the lifeblood of new and innovative radio services -- for many important uses, including broadcast service. Spectrum is a most important aspect of this proceeding. Inefficient or delayed use of spectrum will be counter to U.S. interests because of lost opportunity.

The Commission in paragraph 37 of its Notice, when referring to transition to ATV, indicates:

"We seek comment -- on the underlying assumption that there may be other, superior uses for the spectrum to be surrendered". (emphasis added)

It may not be productive to argue here whether one service is superior to another; it is however, useful to elaborate upon important and growing spectrum needs in the land mobile community for personal communications service, both private and public. We have previously provided information to the Commission indicating a significant need for new spectrum by the year 2000 to accommodate a variety of needs.<sup>1</sup> Specifically, we have projected the following spectrum requirements:<sup>2</sup>

<b><u>Service Type</u></b>	<b><u>Amount of Spectrum (MHz)</u></b>
Private Wide Area	120
Private Local Area	30
Public Wide Area	100
Telepoint/Residential	10
Advanced Messaging/Paging	7
Intelligent Vehicle Highway Systems	10
Global LEOSAT Personal Communications	<u>40</u>
Total 317 MHz	

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<sup>1</sup> See, for example: Comments and Reply Comments to WARC Notices of Inquiry, Gen. Docket No. 89-554; Comments in General Docket No. 90-314 relative to the Commission's PCS en banc hearing.

<sup>2</sup> We note that the land mobile community was on the verge of obtaining additional use of the 470-806 MHz band in the Docket 85-172 proceeding when the ATV matter "broke loose". Spectrum was needed then, as recognized by the Commission, and it is still needed.

These requirements are in addition to any gain in spectrum use resulting from "refarming" the existing land mobile bands.

In addition to the above stated need for spectrum to provide service to a multitude of users, there is a crucial need to provide the basis for continued U.S. provision of radio telecommunications infrastructure and equipment. Both Europe and Japan are in the process of providing substantial additional amounts of spectrum for land mobile use. As a matter of fact Japan already has spectrum above 1 GHz available for land mobile use; in short, Japan is, in this regard at least, ahead of the United States. We as a nation also must provide sufficient spectrum "lifeblood" so that we continue to have a healthy U.S. based land mobile industry -- to do otherwise may drive yet another industry offshore, with a concomitant loss of U.S. jobs.

The Commission also queried in paragraph 41 of its Notice about the option to establish a date certain for conversion of NTSC service to ATV . Based on the need for spectrum elaborated above, Motorola supports this option. It is essential that radio spectrum be effectively and timely used -- we cannot afford to waste it. If spectrum is not used in a reasonable period of time, it should be made available to others who will use it. A date certain is a most effective way to make this happen, and is consistent with Commission practice in its management of the spectrum.

## **ADJACENT CHANNEL PROTECTION MUST BE PROVIDED TO LAND MOBILE OPERATIONS.**

The issue of television-to-land mobile interference from television Channels 14 and 69 to land mobile operations directly below 470 MHz and above 806 MHz is not specifically addressed in this proceeding. However, Motorola takes this opportunity to briefly highlight this matter, which has caused considerable consternation to the Commission, the land mobile community, and broadcast interests in recent years.

The Commission, of course, addressed this matter in MM Docket No. 87-465, and recently adopted Rules providing for protection to land mobile operations. It is important that allocation planning for ATV fully accommodate the requirements of these Rules -- to do otherwise invites a "replay" of the serious problems that both land mobile and broadcast interests suffered in the Atlanta Channel 69 matter.

## **CONCLUSIONS**

The Commission should carefully consider all spectrum needs, including specifically those of the land mobile community, when choosing timeframes for ATV implementation. A date certain should be set for NTSC-to-ATV conversion.

The Commission should incorporate the television-to-land mobile protection requirements of MM Docket No. 87-465 (now reflected in Section 73.687 of its Rules) when it establishes an ATV allocation plan.